



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS

P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,289	07/15/2005	Yuichi Setsuhara	12480-000134/US	7275
36593 7590 12/10/2008 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195				
EXAMINER				
VU, DAVID HUNG				
ART UNIT		PAPER NUMBER		
2821				
MAIL DATE		DELIVERY MODE		
12/10/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/542,289

Applicant(s)

SETSUHARA ET AL.

Examiner

David Hung Vu

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 15 and 22-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 15, 28-31, and 34 is/are rejected.
- 7) ☒ Claim(s) 8-10, 22-27, 32, 33 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: See Continuation Sheet

Continuation of Attachment(s) 6). Other: English translation of JP-236294.

DETAILED ACTION

Specification

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,6,28-31, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Byun et al (hereinafter Byun), US Pub No 2002/0007794.

Byun essentially discloses the claimed invention including two or more loads comprising 4b-4d,105 which are inductive or capacitive, plasma chamber 11, the high frequency power supplying device comprising: high frequency power source 2b-2d for supplying power to the loads, the high frequency power source being provided in proximity to the load, see for example, figures 3-6B, paragraphs [0019]-[0031], [0048]-[0055].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7,15, 28-31, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Youzou, Japan Pat No 08-236294 in view of Holland et al (hereinafter Holland), US Pat No 6,893,533.

Youzou essentially discloses the claimed invention including two or more loads L which are inductive, the high frequency power supplying device comprising: high frequency power source 1 for supplying power to the loads, the high frequency power source being provided in proximity to the load, see whole document. Youzou does not explicitly disclose a plurality of power sources. Holland disclose a plurality of power sources 175,145,155 for a plasma chamber (figures 1-2,24). It would have been obvious to one having ordinary skill in the art at the time of applicant's claimed invention was made to have employed a plurality of power sources; thus, more power would have been provided to the loads.

Regarding claim 2, figure 2 does show amplifiers 6,8,10.

Regarding claims 3-7, frequency/phase modulation and power control and measuring section employing in power device is well known in the art. Thus, one of

ordinary skill in the art would have known how to have employed frequency, phase, and power control and measuring section so as to achieve maximum power transferring.

Regarding claim 15, sensor also is well known in the art. One of ordinary skill in the art would have known how to have employed a sensor ; thus, inductive magnetic field would have been measured.

Regarding claim 34, antenna is very well known for use as load in plasma apparatus. Thus, employing such antenna would have been considered obvious to one of ordinary skill in the art for the purpose of plasma regulating.

6. Claims 2-7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byun.

Byun as discussed from the above, essentially discloses the claimed invention but fails to explicitly disclose high frequency power amplifier. However, amplifier is very well known in the art. It would have been obvious to one having ordinary skill in the art at the time of applicant's claimed invention was made to have employed an amplifier; thus, signal amplifying would have been realized.

Regarding claims 3-7, frequency/phase modulation and power control and measuring section employing in power device is well known in the art. Thus, one of ordinary skill in the art would have known how to have employed frequency, phase, and power control and measuring section so as to achieve maximum power transferring.

Regarding claim 15, sensor also is well known in the art. One of ordinary skill in the art would have known how to have employed a sensor ; thus inductive magnetic field would have been measured.

Allowable Subject Matter

7. Claims 8-10,22-27, 32-33, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Comments

Applicant's argued that reference character "L" only reference an inductance of wiring line from matching box 11,13,15 to electrode 5 and L is not a load. The Examiner respectfully disagrees. Claim must be interpreted reasonably and broadly. A load is just something for power applied to; thus, clearly inductance L, electrode 5 or terminals 12,14,16 can be qualified as a load.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Hung Vu whose telephone number is (571) 272-1831. The examiner can normally be reached on M-F 9:00am-5:30pm.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David Hung Vu/
Primary Examiner
Art Unit 2821

dv

